## 審査の結果の要旨

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This thesis examined the effect of the continuum of care (CoC) card and that of health education on non-communicable diseases (NCDs) and nutrition among mothers in Myanmar. This thesis had two objectives: the first one was to examine the effect of the CoC card and health education on NCDs and nutrition on mothers' utilization of continuum of care services and their knowledge on NCDs and nutrition in Myanmar, the second one was to identify the potential factors associated with the CoC completion in Myanmar.

I conducted this cluster randomized controlled trial in three townships of Myanmar. Mothers in 16 primary health centers received the CoC card and health education on NCDs and nutrition during antenatal and postnatal periods (intervention group) and those in another16 centers received the routine services (control group). The trial has been registered at clinicaltrials.gov, under following registration number: NCT03145155. I did baseline data collection from May to June 2017 and followed them up after nine months, from January to May 2018. For the primary objective, I followed intention-to-treat principle for CoC completion and knowledge on NCDs and nutrition. I used chi-square test to compare the CoC completion rates between the two groups and generalized estimating equations (GEE) to see the effect of health education intervention at follow-up. For the secondary objective, I performed mixed-effects logistic regression analyses to identify the factors associated with CoC completion.

Mothers in the intervention group were more likely to receive CoC services than in the control group; 62 (22.6%) mothers in the intervention group completed CoC whereas 17 (7.0%) mothers in the control group completed CoC (p<0.001). The health education intervention shows significant effect on mother's knowledge scores over time in the intervention group (beta=2.7, p=0.008). Mothers who undergone cesarean section (AOR= 4.0; 95% CI 1.7-9.4) and mothers who reported neonatal complications (AOR=3.3; 95% CI 1.4-7.8) were more likely to complete CoC services.

The Continuum of Care (CoC) card intervention was effective in encouraging mothers to receive the services from pregnancy to 6 weeks postpartum. In Myanmar, receiving PNC four times within 6 weeks is the most challenging component for CoC completion. Health education on NCDs and nutrition also had effect on increasing the mothers' knowledge scores on NCDs and nutrition. The CoC card and health education on NCDs and nutrition for mothers should be integrated in routine maternal and child health services in Myanmar.